

Attorney Docket No.: 0160109  
Application Serial No.: 10/726,200

### **REMARKS**

This is in response to the *Final* Office Action of July 29, 2008, where the Examiner has rejected claims 1-22. An early allowance of outstanding claims 1-22 in view of the following remarks is requested.

#### **A. Objection to the Abstract**

The Examiner has objected to the abstract for use of the word “comprises.” By the present amendment, applicant has amended the abstract to replace the word “comprises” with the word “includes.” Accordingly, applicant respectfully submits that the Examiner’s objection to the abstract has been overcome.

#### **B. Rejection of Claims 1, 3-5 and 12-16 under 35 USC § 103(a)**

The Examiner has rejected claims 1, 3-5 and 12-16, under 35 USC § 103(a), as being unpatentable over Focsaneanu (U.S. Pat. No. 5,828,666) (“Focsaneanu”) in view of Sonnic (U.S. Pat. No. 6,154,721) (“Sonic”). Applicant respectfully disagrees.

In view of the clarifying amendments in response to the previous office action, the Examiner has withdrawn the rejection of the independent claims as being anticipated by Focsaneanu under 35 USC § 102(b), and has now rejected the independent claims under 35 USC § 103(a), as being obvious over Focsaneanu in view of a new cited reference, i.e. Sonnic. Applicant respectfully submits that at least for the reasons stated below, Focsaneanu’s disclosure is so much lacking that its shortcomings cannot be remotely remedied by Sonnic, which merely discloses a “specific implementation” of a voice activity detector (“VAD”) and nothing more.

First, in response to applicant’s arguments that Focsaneanu fails to disclose, teach or

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suggest “said first gateway to detect at least one of human voice and silence on said communication line for a predetermined period of time,” as recited in claim 1, the present Office Action provides the following comments, on page 3:

Focsaneanu discloses a voice detector (see FIG. 8, transceiver 238) enabled to detect at least one of human voice and silence on a communication line (see FIG. 8, 9, transceiver 238 with identification/detection means of access module detecting/identifying voice/POTS, or silent/no-service at initiation on the line between two end users 300 and 302 during; see col. 7, line 45-67; see col. 9, line 3-10, 25-45, 55 to col. 10, line 12) for a predetermined period of time (see col. 3, line 14-20, 38-41; see col. 1, line 51-54; see col. 2, line 20-22, 25-26, 45-47; see col. 3, line 63-65; see col. 8, line 10-15; for a predetermined/pre-program period/time of detecting, or for a predetermined/allocated time/period of current/active connection).

More specifically, as shown above, the Office Action reads “see FIG. 8, 9, transceiver 238 with identification/detection means of access module detecting/identifying voice/POTS, or silence/no-service at initiation on the line between two end users 300 and 302 during; see col. 7, line 45-67; see col. 9, line 3-10, 24-45, 55 to col. 10, line 12) ....” (emphasis added.) It is respectfully submitted that applicant has searched the entire disclosure of Focsaneanu, but has not been able to find any description that can be remotely interpreted to teach or suggest detection of voice or silence in Focsaneanu. For example, the disclosure at col. 7, lines 61-67 of Focsaneanu, which has been relied upon by the Office Action, reads:

wireless, fiber optics, coax cable, etc. An access module 234 at the end of the local access has a line interface 236 for this local access. It contains a transceiver 238 with identifying capabilities and a modem functionality 240. It also contains POTS/codec service 242. The identifying circuit detects and identifies a service request as a POTS service or data service request. The modem and POTS functionalities can be emu-

As it can be seen, in this excerpt, Focsaneanu is merely pointing out that transceiver 238 detects and identifies "a service request" as a POTS service or data service. Applicant respectfully submits that the keywords here are "a service request." There is no disclosure in Focsaneanu about detection of human voice or silence for choosing between POTS service or data service.

As a further example, the disclosure of Focsaneanu at col. 9, line 3-10, 24-55, which has been relied upon by the Office Action, reads:

When a customer's service request is first detected, it is determined whether the request is for data services or a POTS service, and then the type of data service is determined by consulting the database. It should be noted that this service request comes to the access module from either direction, that is to say, in one instance a near end user requests a service from service providers and in another, in response to a service request from a far end user, a service provider requests an access module to make a connection to any CPE at the near end user.

According to one embodiment, detection of a service request is performed by a procedure herein called a "service default" procedure. In this embodiment, the access module is in the default, e.g. "service default", state. In the service default state, the network is normally receiving and expecting packet data. Therefore data can be initiated from or received by the CPE at any time. As described above, this is a marked difference from the existing procedure involving a PSTN where the default is POTS services. The access module can alter the state of the access at any instant that a service request is received. When the access module is in alternate (non-default) state, the line interface provides the physical interface to the user's copper loop. It includes the basic "BORSCHT (Battery, Overvoltage protection, Ringing, Supervision, Coding, Hybrid, Testing)" functionalities specified for POTS services, i.e. providing battery, current detection, electrical protection, signaling recognition (pulse or DTMF), analog/digital conversion, and loopbacks for testing.

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Just as in the previous excerpt of Focsaneanu that has been relied upon by the Office Action, this excerpt is also clearly focused on "customer's service request," and the service request detection and processing. Again, applicant respectfully submits that this excerpt is void of any mention of human voice or silence detection for changing the operating mode of the gateway device from data mode to voice mode.

Lastly, however, at col. 10, lines 6-12, Focsaneanu describes the "service request" and its detection. To this end, Focsaneanu provides that the switching from data mode to voice mode is not accomplished by a detection of human voice or silence, but rather, Focsaneanu teaches that:

A customer's request for POTS service, for example by using a DTMF symbol "\*" or "#", is interpreted as a request for dial tone and the data connection is dropped. The POTS personality is then downloaded to the line interface and the processor provides the physical interface to the user's copper loop. The request for dial tone is passed to the local circuit switch, e.g. via TR-303 protocol. (Col. 10, lines 6-12.)

Therefore, according to Focsaneanu, when a customer decides to switch from data mode to voice mode, the customer must use a DTMF symbol "\*" or "#" to request that the POTS personality to be changed from data mode to voice mode.

Applicant respectfully submits that the approach adopted by Focsaneanu is remarkably different than that of the invention of claim 1, because Focsaneanu's approach requires the service users to take specific steps and, in fact, issue commands to switch the phone system from data mode to voice mode (by pressing buttons on the phone to send specific DTMF tones.) Thus, Focsaneanu's approach destroys the transparency that exists in the conventional gateway devices that use voice mode as the default, and that, transparent to the users, can switch to modem mode by detecting certain modem signals. According to Focsaneanu, however, when data mode is used as default, switching to voice mode is not transparent to the user, because the user is forced to

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use DTMF symbols to switch from data mode to voice mode.

The invention of claim 1, however, offers and maintains the transparency of the conventional art, and at the same time provides a superior solution by setting the default mode of operation to data mode. According to the invention of claim 1, unlike Focsaneanu, there is no need for the user to be aware of the default mode of operation, and the switching is performed seamlessly, and without any intervention by the user.

Therefore, applicant respectfully disagrees with the Office Action's construction, and respectfully submits that detection of DTMF tones is not remotely the same as detecting human voice or silence. It is respectfully submitted that merely because DTMF tones are used to instruct the gateway to switch to voice mode and that transceiver 238 is configured to detect DTMF tones for that purposes, it does not remotely mean that transceiver 238 of Focsaneanu is detecting human voice or silence. Applicant respectfully submits that one of ordinary skill in the art would indeed understand the limitations of claim 1 "detect at least one of human voice and silence on said communication line," to be quite different than detecting a DTMF instruction.

Now, turning to Sonnic, on page 6 of the Office Action, it is stated that "Focsaneanu does not explicitly disclose 'a voice activity detector {VAD},' but that Sonnic discloses a VAD, and that a combination of Focsaneanu and Sonnic renders the invention of claim 1 obvious.

Applicant respectfully submits that, as stated above, not only Focsaneanu fails to "explicitly" disclose a VAD, but also Focsaneanu fails to implicitly or in any other way disclose the use of a VAD, as recited in claim 1 of the present application. It is respectfully submitted that the Office Action fails to establish a *prima facie* case of obviousness, as it fails to explain how one of ordinary skill in the art is taught by either Focsaneanu or Sonnic to eliminate the entire concept of "service request" from Focsaneanu, and further replace the DTMF detector of

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transceiver 238 in Focsaneanu with the VAD of Sonnic. Even more, applicant respectfully submits that Sonnic does not provide anything other than just a “specific implementation” of a VAD. Applicant indeed accepts that VADs have existed many years prior to the invention of claim 1 of the present application and, thus, applicant does not appreciate the significance of Sonnic as to how Sonnic adds any disclosure or teaching beyond the fact that VADs have existed prior to the invention of claim 1. However, it still remains that neither Focsaneanu nor Sonnic teaches or suggests the use of a VAD, as claimed in claim 1 of the present application, or teaches or suggests the elimination of the service request concept and DTMF detector of transceiver 238 from Focsaneanu, which are the core of Focsaneanu’s system, and the replacement of them with the VAD of Sonnic to arrive at the invention of claim 1 of the present application, without the use of hindsight.

Applicant respectfully submits that applicant amended claim 1 in response to the previous Office Action to clarify the invention of claim 1 over Focsaneanu to the effect that claim 1 of the present application enables “a voice activity detector (VAD) of said first gateway to detect at least one of human voice and silence on said communication line,” in order to overcome the Office Action’s impermissibly broad construction that detection of DTMF tones in Focsaneanu can be considered to be detection of human voice and silence. As a result of the amendment, applicant respectfully submits that, for the reasons stated above, the invention of claim 1 is clearly distinguishable over Focsaneanu in view of Sonnic, and applicant respectfully requests the Examiner’s reconsideration of the outstanding rejection in view of the above remarks.

Accordingly, applicant respectfully submits that claim 1, and its dependent claims 3-5 depend, should be allowed at least for the reasons stated above. Further, independent claim 12 includes limitations similar to those discussed above in conjunction with claim 1. Therefore,

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independent claim 12, and its dependent claims 13-16, should also be allowed at least for the reasons stated above.

**C. Rejection of Claims 2, 11, 13 and 22 under 35 USC § 103(a)**

The Examiner has rejected claims 2, 11, 13 and 22, under 35 USC § 103(a), as being unpatentable over Focsaneanu in view of Sonnic, and further in view of Baumann (U.S. Pub. No. 2003/0118008) ("Baumann").

Applicant respectfully submits that claims 2, 11, 13 and 22 depend from claims 1 and 12, respectively, and should be allowed at least for the reasons stated above.

**D. Rejection of Claims 6 and 17 under 35 USC § 103(a)**

The Examiner has rejected claims 6 and 17, under 35 USC § 103(a), as being unpatentable over Focsaneanu in view of Sonnic, and further in view of Hansen (USPN 5,940,475) ("Hansen").

Applicant respectfully submits that claims 6 and 17 depend from claims 1 and 12, respectively, and should be allowed at least for the reasons stated above.

**E. Rejection of Claims 7 and 18 under 35 USC § 103(a)**

The Examiner has rejected claims 7 and 18, under 35 USC § 103(a), as being unpatentable over Focsaneanu in view of Sonnic, and further in view of Wildfeuer (USPN 6,829,244) ("Wildfeuer").

Applicant respectfully submits that claims 7 and 18 depend from claims 1 and 12, respectively, and should be allowed at least for the reasons stated above.

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**F. Rejection of Claims 8 and 19 under 35 USC § 103(a)**

The Examiner has rejected claims 8 and 19, under 35 USC § 103(a), as being unpatentable over Focsaneanu in view of Sonnic, and further in view of Wildfeuer and Schuster (USPN 6,785,261) ("Schuster").

Applicant respectfully submits that claims 8 and 19 depend from claims 1 and 12, respectively, and should be allowed at least for the reasons stated above.

**G. Rejection of Claims 9, 10, 20 and 21 under 35 USC § 103(a)**

The Examiner has rejected claims 9, 10, 20 and 21, under 35 USC § 103(a), as being unpatentable over Focsaneanu in view of Sonnic, and further in view of Goldstein (U.S. Pub. No. 2003/0185222) ("Goldstein").

Applicant respectfully submits that claims 9, 10, 20 and 21 depend from claims 1 and 12, respectively, and should be allowed at least for the reasons stated above.

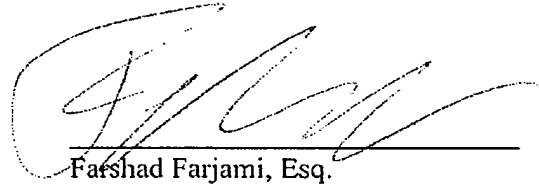


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H. Conclusion

Based on the foregoing reasons, an early Notice of Allowance directed to all claims 1-22 pending in the present application is respectfully requested.

Respectfully Submitted,  
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